ROLLING BEARING

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Abstract of **JP10184701**

PROBLEM TO BE SOLVED: To use a rolling bearing having a forged surface without any reduction in its service life by making at least a bearing ring of bearing steel, performing carbonitriding and quenching/tempering, setting the surface hardness of the forged surface to a specified value and leaving much compressive stress and austenite. SOLUTION: At least a bearing ring is molded using a bearing steel. After carbonitriding, quenching/tempering is performed and a forged surface is formed on its surface having a surface hardness set to Hv 700 or higher. then, compressive stress and austenite are much left. In this case, carbonitriding is executed for bearing steel having many non-metallic inclusions such that a cleanliness factor prescribed by JIS standard is 0.04% or higher. For bearing parts having such forget surfaces, their service lives are prolonged by performing carbonitriding under proper conditions, and levels equal to or higher than those of ground ones are provided. Thus, a rolling life can be prolonged and applied for a rolling bearing.